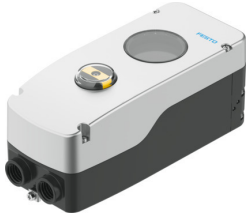


# Positioner CMSH-S-VDE1-D-A-AL-G14-C1M20-HA

Part number: 8097420

**FESTO**



 [General operating condition](#)

## Data sheet

| Feature                                     | Value                                                                        |
|---------------------------------------------|------------------------------------------------------------------------------|
| Design                                      | Digital, electropneumatic positioner                                         |
| Mode of operation                           | Double-acting                                                                |
| Design characteristics                      | Safety pneumatic output 2 exhausted<br>Safety pneumatic output 4 pressurised |
| Mounting position                           | optional                                                                     |
| Type of mounting                            | With accessories<br>To VDI/VDE 3845                                          |
| Functional principle of measuring system    | Potentiometer                                                                |
| Sensing range                               | 0 deg ... 115 deg                                                            |
| Display                                     | LCD display, via software 90° rotatable                                      |
| Setting options                             | Via display and keys                                                         |
| Cycle time                                  | 20 ms                                                                        |
| Nominal altitude of use                     | ≤ 2000 m NHN                                                                 |
| Overvoltage category                        | II                                                                           |
| Operating pressure                          | 0.14 MPa ... 0.8 MPa                                                         |
| Operating pressure                          | 1.4 bar ... 8 bar                                                            |
| Operating pressure                          | 20.3 psi ... 116 psi                                                         |
| Operating medium                            | Compressed air to ISO 8573-1:2010 [7:4:4]                                    |
| Note on operating and pilot medium          | Lubricated operation not possible<br>Maximum particle size 40 µm             |
| Air flow rate at Δp = 6 bar                 | 270 l/min                                                                    |
| Pneumatic connection                        | G1/4                                                                         |
| Reverse polarity protection                 | yes                                                                          |
| Connection resistance                       | 3 kOhm ... 80 kOhm                                                           |
| digital input, signal range                 | 4 - 20 mA with HART                                                          |
| Analogue inputs, input impedance            | 480 ohm at 20 mA                                                             |
| Analog inputs, overload protection          | ≤ 65 mA                                                                      |
| Analogue inputs, electrical isolation       | yes                                                                          |
| Characteristic for inputs                   | 1x to IEC 61131-2, type 3                                                    |
| Digital inputs, reverse polarity protection | yes                                                                          |
| Digital inputs, electrical isolation        | yes                                                                          |
| Digital inputs, overload protection         | 33 V                                                                         |
| Electrical connection 1, function           | Analogue input<br>Digital input<br>External path/angle sensor                |
| Electrical connection 1, connection type    | Terminal strip                                                               |
| Electrical connection 1, connector system   | Spring-loaded terminal                                                       |

| Feature                                              | Value                                                                                                      |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Electrical connection 1, number of connections/cores | 7                                                                                                          |
| Cable fitting                                        | 2x M20x1.5                                                                                                 |
| Max. cable length                                    | 30 m for external position sensor<br>Shielded                                                              |
| Ambient temperature                                  | -40 °C ... 80 °C                                                                                           |
| Note on ambient temperature                          | Display: -30 - 80°C                                                                                        |
| Storage temperature                                  | -40 °C ... 80 °C                                                                                           |
| Climatic category                                    | 1K5 to EN 60721 for storage<br>4K3 to EN 60721 for operation                                               |
| Degree of protection                                 | IP66<br>IP67                                                                                               |
| Shock resistance                                     | Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27                                          |
| Vibration resistance                                 | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6                           |
| Pollution degree                                     | 3                                                                                                          |
| Approval                                             | RCM trademark                                                                                              |
| CE mark (see declaration of conformity)              | To EU EMC Directive<br>To EU Explosion Protection Directive (ATEX)<br>In accordance with EU RoHS Directive |
| UKCA marking (see declaration of conformity)         | To UK instructions for EMC<br>To UK RoHS instructions                                                      |
| Material housing                                     | Aluminium, powder-coated                                                                                   |
| Material screen                                      | PC                                                                                                         |
| Material shaft                                       | High-alloy stainless steel                                                                                 |
| Material coupling                                    | High-alloy stainless steel                                                                                 |
| Material screws                                      | Galvanised steel                                                                                           |
| Material seals                                       | EPDM<br>NBR<br>VMQ                                                                                         |
| LABS (PWIS) conformity                               | VDMA24364 zone III                                                                                         |
| Note on materials                                    | RoHS-compliant                                                                                             |
| Product weight                                       | 2640 g                                                                                                     |